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Armed Forces and Society

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EXPEDITIONARY MINDSET: MORAL AND CONCEPTUAL FACTORS

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Skepticism and rationalism are part of the western ethics; universalism and equal treatment are fundamental conditions for a legally secure administration. In all liberal states, there are democratic values dictating political democracy, legal justice and public ethics, in addition to economic values that prescribes functional rationality, cost-effectiveness and productivity. Countries where Swedish expeditionary forces are engaged are usually not characterized by these values, a situation which may result in dramatic cultural clashes. Understanding the value differences between one's own culture and the host country is therefore of importance and can make or break the success of a mission. The apprehension that the differences are usually great and are unlikely to change throughout the expedition is a fundamental overall (meta-) "core value" within a force.

Moreover, the expeditionary situation can cause a negative incentive where the enemy might use various forms of persuasion, aggressiveness and brutality. An expeditionary force, on the other hand, is expected to win "hearts and minds", which often demands moderation, patience and cultural understanding. The type and grade of these differences need to be studied, and approaches developed.

"Expeditionary Mindset, Moral and Conceptual Factors" uses input from, among others, cultural anthropology and sociological studies, where case studies from critical situations make up an important part. One of the objectives is to generate output in the form of informative and educational material, as well as training guidelines for the Swedish Armed Forces in core values and value differences.

The project is commissioned by the Swedish Armed Forces, and is a follow-up to the 2009 project "Core Values and Expeditionary Mindset".

RESEARCH AND NETWORKING THROUGH THE SCIENTIFIC ADVISORY BOARD FOR DEFENCE (MATINE)

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The Scientific Advisory Board for Defence (MATINE) is an organization of the Finnish Ministry of Defence, intended as a networked research organization supporting the needs of defence administration. The board of MATINE consists of scientific members representing natural sciences, technology, medicine and health, political and administrative sciences, as well as government officials of various organizations relevant to the national safety and total defence of the state. In addition to the board, there are 13 expert sections and 3 areal sections representing the research focus areas and local cooperation networks. Permanent secretariat supports the operations of the networked organization. Altogether, MATINE gathers more than 350 persons consisting mainly on voluntary members of academia, administration and companies.

MATINE is established in 1961.

MATINE is intended as a national think-tank on scientific matters and innovations. Therefore the role is to promote new ideas, concepts and experiments. In practice, MATINE guides and finances feasibility studies on various actual research issues. Recently, the role of security research has emphasized the need for cooperation of various governmental institutions, and MATINE is a viable platform for these purposes as well.

In the full paper, research topics and the impact of research will be further analyzed.

GUINEA AND GUINEA-BISSAU: POST-REVOLUTIONARY ARMIES AND MILITARIZED BANDITRY

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In Guinea and Guinea-Bissau, national armies have been created as an answer to colonization. While both countries had a pre-colonial warrior legacy, national armies have been developed only when the countries declared their independence. In Guinea, natives were included into the French imperial army during the colonial era. But when independence was declared, President Sekou Toure did everything to destroy French influence and to isolate French-trained elements to build an army according his revolutionary credo. In Guinea-Bissau, no African troops were trained by Portuguese colonial regime. The national army was a conglomerate of revolutionary guerillas that fought for the country independence.

Many decades later, Guinea and Guinea-Bissau hold armies with poor discipline, unruly elements and criminal behaviors. Both countries faced several coups and political interference from the military. The current paper will look at the effects of revolutionary backgrounds in the development of national army in those two countries in way to understand what happens once there is no more revolution to fight. It will argue that the revolutionary past has created a lasting moral legitimacy that justifies latest exactions from military elements. The paper will also look at how institutional memory has been an engine to replicate unruly and criminal behaviors, and how lack of discipline is in fact transmit from one generation to another.

PREPARING AN EXPEDITIONARY MINDSET THROUGH ORGANIZATIONAL SCRIPTING OF EMOTIONS: A CASE OF CONFIDENCE IN EXPEDITIONARY ORGANIZATIONS

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In this presentation I will discuss and problematize the expeditionary mindset concept. I will then argue that the purposeful "organizational scripting" of the shared emotion of confidence could lead to an "expeditionary organization" prepared for performing expeditionary operations. Organizing is, in this paper, seen an outcome of negotiation of various actors with different possibilities to change the nature of that organization and is in constant and dynamical change through the interaction between actors and organization. The approach taken in this text is loosely based on a dramaturgical symbolic interactionist perspective and informed by the pragmatist William James' notion of action and temporality.

The expeditionary mindset is a shared attitude of being prepared for action in austere environments at short notice. Ones bags are to be constantly packed, thus always being ready to deploy anywhere in the world. It is assumed that expeditionary mindset should handle contingency and complexity as the military actors are to be ready for instant, global deployment. The expeditionary mindset is about preparation and handling an uncertain future event. The situational constraints of an uncertain future can lead to fear and uncertainty. So, the expeditionary mindset should handle the fear by organizing confidence. The emotional climate of confidence in a group of military actors is created by scripting the future uncertain expeditionary mission with confidence. In other words the expeditionary mindset should be educated. The goal of organizational scripting is to create and coordinate an effective, willing and action oriented expeditionary organization.

JOINT RESEARCH PROJECT: INTERCULTURAL CHALLENGES WITHIN EUROPEAN ARMED FORCES: RISKS, CHANCES AND SUSTAINABLE MANAGEMENT

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Today national states and their armed forces have to cope with intercultural challenges on a broad level: a rising number of soldiers with immigrant and/or non-Christian background serving as professional soldiers and as conscripts as well as intercultural challenges in the framework of out-of-area missions with regard to co-operation within international forces and staff and handling any kind of contact with local population in the mission area. Experiences in the field have shown that in order to avoid or at least lower frictions arising from these intercultural contacts (blurred perceptions, ambivalences, prejudice errors in attribution etc.) and to enhance successful and goal-orientated co-operation it appears to be necessary to develop and implement custom-made training programs as well as measures accentuating similarities and superior common goals and tasks.

The project partners mentioned above have come to the conclusion that also armed forces in Austria and Sweden have to face these intercultural challenges. Thus, this project has been developed which is structured in three phases: firstly, empirical field research in Austria and Sweden in order to assess any need for intercultural training as well as for specific measures, secondly, development of specific intercultural training programs for soldiers and commanders of all levels, thirdly, further research and evaluation of training programs.

MILITARY FORCE'S ROLE IN TRANSPORTATION BUSINESS

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In the European Union countries, cabotage in road transportation has become possible to increase competition. However, opening borders may also cause asymmetric competition conditions between transportation companies from low and high cost countries and cause serious problems in high cost countries. Further, this may weakens defence security in reservist based countries due lack of domestic

transportation services in crises. Hence, purpose of this research is study how military forces can take care of domestic transportation system. The empirical data was gathered from members of the Finnish Transport and Logistics (SKAL) in 2008. The survey resulted in 460 acceptable responses (17.7 %). The analyses were made using structural equation modeling. The results revealed that while bad negotiation power of truckers weakens their satisfaction toward transportation business, military forces with driving education and as a buyer of transportation services improves it. Truckers' satisfaction toward transportation business reduces cabotage transportation, while cabotage increases importance of military forces as a buyer of transportation services.

HOW TO HELP MODERN AJAX? MANAGING COMBAT TRAUMA TRHOUGH PHARMACOLOGY

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War causes trauma that undoes warrior's character. Descriptions of odd behavior in war can be found in literature. It was recorded, for example, by Sophocles. His Ajax is an archetypical example of traumatized warrior.

Some veterans of the wars in Iraq and Afghanistan admit that there are striking parallels between this conflicts and the Trojan War. With the US facing an asymmetrical enemies there are far too many Ajaxes today.

Anxiety is central to warfare but yet there has been no fine cure for this dangerous condition. However, advanced R&D programs aim to find a "magic pill" empowering the military to pharmacologically manage the PTSD.

The aim of the paper is to review the application and properties of some medicines with special emphasis on Propranolol. This wonderful drug seems to erease traumatising memories, preventing trauma from occuring. Its effects could be compared to morning-after contraception pill. Still, it was Jean Baudrillard who procaimed "first safe sex, now safe war". With the pharmacologization of war some fundametal social and ethical questions arise which will also be addressed.

THE EVOLVING NATURE OF SOLDIERSHIP IN OUR "POSTMODERN" TIMES

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The essence of soldiership is reinterpreted in the paper. A new kind of soldiership, akin to security sector actorship, is emerging on the national security sector in Finland. The activities of the national security sector, when analyzed from the point of view of the cultural-historical activity theory, are mediated by several kinds of means, some of which are conceptual. An efficient and good national security sector should have some shared aspects like for example some ends and objects of the activities but also some mediating means. The analysis done in the paper shows how human security oriented activities are mediated in Finland at the moment for example by such concepts as human security and action competence.

In the Nordic countries, soldiership has got a new flavour in our "postmodern" times (Moskos et al. 2000), with primacy given to international missions (Stoltenberg 2009; Bailes et al. 2006) instead of old-fashioned territorial defence and some comprehensive internal security activities. By comprehensiveness, I mean that both civilian and military resources and personnel are needed for internal security activities, as the duties of the Finnish Defence Forces also highlight at the moment (Finnish Parliament 2007). According to the premises of this article we should keep our soldiers also nationally oriented ones and educate them to act as national security actors. The security actorship and the soldiership means that each individual actor keeps in mind fundamental questions, such as how to maintain one's ethical consistency and to be an ethical subject by justifying killing and respecting human dignity and human security at the same time.

It follows that instead of just being "hired guns" and "traditional warriors", the (Finnish) soldiers are national security actors in our forthcoming comprehensive national security age. Both soldiership and the emerging security actorship have to be reinterpreted when more justifiable ethical-moral grounds for the activities of the comprehensive national security sector have to be established.

The soldiers are in the security business and are acting on a broad field of the security sector that has been under a global transformation process (i.e. Security Sector Reform, SSR). Security, and more specifically human security, is a widely shared interest, and soldiers are actively seeking new kinds of means and ways for collaboration with the representatives of the other branches of government, as well as with the security sector in general.

Already after the Second World War, military establishments have been heavily engaged in human security-related activities in the peacekeeping and in many kinds of duties in assisting civilian authorities. This shift in orientation has been accelerated also by academic studies and debates. At least since the 1980s, the so called 'interparadigm debate' (Raitasalo 2008) between the traditional realist, or positivistic, interpretations and the emerging anti-positivistic interpretations has been going on. Instead of taking an 'either-or' stand in these debates, the present paper focuses on the meaning, dynamics and application of (security) concepts (i.e. human security; action competence), and debates that have often taken place across these categories (Fierke 2007, 3). This means that the most enlightening debate for the human oriented security studies seems to be the debate over the traditional orientation to security versus critical security studies (CSS) (Fierke 2007; Booth 1991; see Limnéll 2009, 57–60). In other words, this paper has the emansipatory interest that is shared by critical security studies and military pedagogical studies. The subjects to be emancipated are the soldiers (i.e. citizen soldiers) but also the other security sector actors.

The military pedagogists of the Department of Leadership and Military Pedagogy at the Finnish National Defence University feel the need to enhance educational considerations within the wide field of comprehensive crisis management and among human security researchers and educators. For this purpose, a new kind of course for MMSc students (i.e. MA students) was held this winter, called 'Security and Comperehensive Crisis Management', and this paper reflects on the progressive inquiries done before, during and after the innovative and future-oriented course.

Defence Management and Economics

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RANKING THE PERFORMANCE OF EUROPEAN ARMED FORCES (EAF)

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The Lisbon treaty presents important innovations to the European Defence field. The mutual solidarity clause and the commitments to further develop military and diplomatic capabilities lay a foundation for a more collective European Defence. A more common European defence policy raises the issues of burden sharing and of relative performance measurement of the EAF. In the paper, we compare the performance of the EAF using four dimensions (input, throughput, output and outcome). In order to express the performance, differing indicators are formulated for each of these four dimensions. The data used to calculate the indicators are based on publications of NATO, the European Defence Agency (EDA) and the International Institute for Strategic Studies (IISS) over the period of 1995-2008. Interestingly, depending on the selection of indicators the armed forces of each European country hold various positions on the performance ranking lists. For instance, the armed forces of Bulgaria outrank all the other armed forces on the input dimension. However, on the output dimension Bulgaria comes in last. On the other hand, Ireland ranks last on our input dimension. However, Ireland ranks first on the output dimension. The implication of our study is that to rank the performance of EAF in a meaningful way, it makes sense to combine various indicators. One limitation of our study is that - given the ongoing modernization of the armed forces and the increasing importance of technological superiority in addition to the deployment of troops - the focus of the information collected is too much oriented on the number of (deployed) troops. Therefore, the real contributions of the more technically oriented operational commands (the air force and navy) are not given enough weight.

THE KANDAHAR MARKET: SOURCING IN AFGHANISTAN

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Due to the changing context after the fall of the Berlin Wall, armed forces' of western societies were faced with the collection of 'peace dividend'. From the 1990's onwards forces had to be leaner and the budgets were reduced[1].

Parallel to this, defence organisations started to actively participate in worldwide missions as part of their search for new raison d'êtres[2]. New foundations were found in short term worldwide humanitarian operations after for instance natural disasters like the flooding in Papua New Guinea. Another was found in the execution and participation in crisis response operations such as in former Yugoslavia. Currently the combat against global terrorism in Afghanistan are the cornerstones for today's modern western armed forces. In Afghanistan for example, more than forty armed forces have deployed troops in the International Security and Assistance Mission (ISAF)[3].

1 Brzsoka, M. (2004) Taxation of the Global Arms Trade? An Overview of the Issues. Kyklos. 52 p. 149-172; Sandler, T. & Hartley, K. (1995) The Economics of Defence. Cambridge University Press: Cambridge
2 Farrel, T. (2008) The dynamics of British military transformation. International Affairs. 84 (4) p. 777-807.
3 NATO (2010) ISAF troop contributing nations. http://www.nato.int/isaf/docu/epub/pdf/placemat.pdf accessed on 3 March 2010.

However, the deployment of armed forces worldwide is at odds with the collected 'peace dividend'. Modern western armed forces are not capable to execute large operations in isolation anymore[4].

Facing this turmoil, efficiency and effectiveness improvement through cooperation with other organisations is relevant in defence management. This subject can be referred to as sourcing[5]. Sourcing is defined as management questions regarding how to organise (parts of) the production: internal in the organisation, by external parties, and -for instance- in cooperation with other military organisations or commercial providers.

A specific focus on sourcing during the actual deployment of armed forces is relatively new. Contemporary literature regarding this subject has a "normative-prescriptive" orientation: authors are focused on the identification and implementation of best-practices in the areas of economics, political-military, law and ethics[6]. Less attention is directed toward questions such as how and why armed forces organise sourcing in the mission area. Hence, this paper aims to add a more "positive-descriptive" view to contribute to the literature. The paper provides insight to enhance manageability and policy development and can be relevant for those who prepare, execute, monitor and evaluate missions.

The main research question is how armed forces organise sourcing in the International Security and Assistance (ISAF) mission in Afghanistan. To this end we focus on discovering and describing the characteristics of sourcing during military operations. We develop a framework that draws on transaction cost economics and electronic commerce literature to explore, analyse and categorise the sourcing profiles of logistic support services of military organizations during deployment in Afghanistan. Military support organizations of Canada, the Netherlands, the United Kingdom, the United States and the NATO are explored in detail.

Our results show that the conditions under which British, Canadian, Dutch, and American armed forces function in Afghanistan are difficult. The organisation of a military mission such as ISAF proves to be a challenging task.

Our research indicates the all the armed forces' both use cross servicing (Military to Military) and the market (Market to Business) to be able to deploy the troops in Afghanistan. Within the Market to Business profile, the Anglo-Saxon Countries (United States, United Kingdom and Canada) contract on demand in the mission area and have constructed a strategic partnership with a contingency contractor. In this construction one large commercial firm is contracted to provide a wide range of services for the mission. The services are if needed provided in the mission area. The idea is that one commercial firm is responsible for the provisioning of the requested services and the firm is allowed to organise and subcontract the service delivery itself. The Netherlands does not have a large contingency contractor but contracts only on demand.

In conjunction with the Anglo-Saxon contingency contractor concept the NATO agency NAMSA provides combined Market to Business contract services in the mission area South-Afghanistan. The goal of this initiative is to provide a Market to Business logistic hub for NATO partners to utilise economies of scale and scope, to open possibilities for relatively smaller NATO partners to join a mission and to simplify possible switches between armed forces in a mission. Therefore NAMSA contracts the delivery of facilities management and logistics and maintenance in the mission area. Unlike the contingency contractor concept the NATO contractors are not allowed to subcontract without permission and are contracted only to provide the services which are specified beforehand.

Future research towards sourcing during deployment in armed forces seems relevant. The relevance of the criteria to differentiate between sourcing profiles can be assessed in more detail using other case studies. Second, is the current trend of Military to Military and Market to Business sourcing viable and how will the combined Market to Business sourcing strategy of the NATO develop?

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4 Cancian, M. (2008) 'Contractors: The New Element of Military Force Structure', Parameters, 38, p. 61-77; Perry, D. (2007) Contractors in Kandahar, Eh? Canada's 'Real' Commitment to Afghanistan, in: Journal of Military and Strategic Studies. 9 (4) p. 1-23; Tuttle Jr, W. (2005) Defence Logistics for the 2st Century. Naval Institute Press: Annapolis.

5 Franck & Melese (2008) Defense Acquisition: New Insights from Transaction Cost Economics. Defense & Security Analysis. 24 (2) p. 107–128.

6 Avant, D. (2005) Private Security Companies. New Political Economy, 10 (1) p. 121-131; Bures, O. (2005) Private Military Companies: A Second Best Peacekeeping Option? InternationalPeacekeeping. 12 p. 533-546; Fredland, J. E. (2004) 'Outsourcing Military Force: A Transactions Cost Perspective on The Role of Military Companies', Defence and Peace Economics. 15 p. 205-219; Ries, M. (2008) Contingency Contractor Personnel: What to Do with Security Contractors? The Army Lawyer. 38 (1) p. 96-100; Singer, P. W. (2004) Corporate Warriors: The Rise of the Privatized Military Industry. Cornell University Press: New York.

DEVELOPING AND DEPLOYING DYNAMIC CAPABILITIES: THE CASE OF A WESTERN EXPEDITIONARY MILITARY CRISIS RESPONSE ORGANIZATION

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In the academic debate on dealing with hypercompetition survival or organizational success is being presented as a result of activating dynamic capabilities to repetitively create temporary advantages. A practical question left open in this debate is which organizational enablers matter in the development and deployment of dynamic capabilities. Based on existing strategic management literature we concentrate on absorptive capacity, modular organizing, and lateral coordination as important enablers to invest in when dealing with hypercompetition. The Dutch armed forces have been selected as the study's central research case. Basically, this organization faces, albeit in a more extreme sense, a similar challenge as many organizations in the hypercompetitive business arena do. In short, the Dutch armed forces repetitively need to initiate strategic changes to stay ahead of the unstable security environment and to cope with the volatility of individual mission environments, and at the same time the organization has to avoid becoming organizationally exhausted. Our findings show that lateral coordination, absorptive capacity, and modular organizing some or less equally influence an organization's mixture of dynamic capabilities. Furthermore, the results demonstrate that under disruptive crisis response circumstances a balanced mixture of strategic, structural, and operational dynamic capabilities has a positive impact on organizational performance.

DYNAMIC CAPABILITIES AND MILITARY FLEXIBILITY: ADAPTING TO RAPIDLY CHANGING OPERATIONAL CONTEXTS AND TASKS

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In a rapidly changing strategic environment military organizations constantly risk being out of date, with training, doctrine and equipment optimized for the last conflict rather than the next. Moreover, the nature of contemporary conflict is often described as hybrid warfare, or three block warfare – involving both regular and irregular features, and therefore rapidly changing tasks ranging from humanitarian support to high intensity combat. Together, these features mean that organizational adaptability and flexibility is absolutely essential for military effectiveness. But what does a flexible military organization look like? What are the structural and cultural features of flexibility? This paper aims to address these questions by merging the fields of strategic studies and organizational theory. More specifically, the paper applies lessons from the business literature on 'dynamic capabilities' on the military sphere in order to provide new insights into the idea of what constitutes a flexible military organization, suitable for the complex contemporary strategic context.

STRATEGY AND ITS IMPLEMENTATION IN THE FINNISH DEFENCE FORCES

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This study goes by the name "Implementing strategy in the change of the administration of the Finnish Defence Forces (FDF)". Qualitative data consist of 10 interviews with people who are or have been in somehow relevant positions in the strategy work of the FDF. Theoretical approach of the study is Strategy-as-Practice, where strategy is seen as social action and a set of daily practices. In earlier studies about FDF's strategy, it became evident that implementation had not received enough attention. The aim of the research is to produce knowledge about the problems in the strategy work and the implementation of strategy and to offer solutions to these problems.

INVENTIVE PHASES OF TECHNOLOGY INNOVATION – AN ANALYSIS OF ECONOMIC ORGANIZATIONAL DESIGN OF KNOWLEDGE BASED EARLY DEVELOPMENT OF DEFENCE AND INFRASTRUCTURE SYSTEMS, A COMPARATIVE CASE STUDY

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A comparative actor oriented study investigating early phases of technology innovation of defence systems and critical infrastructure systems cases in Sweden in the post Cold war era. Actors can be operators-users-clients, scientists, industrial and service companies, political decisions makers, defence forces and services, and infrastructure owners. The institutional framework defining mandates and rules of action spaces is central. A secondary level is organizational with regards to resources, for example communication, control and leadership of diverse cognitive capabilities in networks. Entrepreneurial spirit and taking risk are central to radical innovation and breakthroughs from technology. Finally, context is important, globalization, national and international industrial restructuring and shrinking markets and investment for defence systems investments.

Law and Ethics

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THE APPLICATION OF INTERNATIONAL HUMAN RIGHTS IN INTERNATIONAL MILITARY OPERATIONS

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Australian and Dutch forces operating in Afghanistan are confronted with operational issues related to human rights obligations. The aim of this paper is to define the role of human rights obligations in the conduct of operations. The central question in this paper is whether, and if so which and to which extent, human rights obligations are applicable to military operations. The research will follow a two-stage approach.1

The first stage is to establish the threshold of the applicability de jure. The starting point is the obligation of States to guarantee human rights to persons within their jurisdiction. Jurisdiction is not limited to territorial jurisdiction, but also refers to extraterritorial jurisdiction. Apart from the ordinary instruments of international law (e.g. consent), extraterritorial jurisdiction is established by either Effective Control of an Area (ECA), or by State Agent Authority (SAA).2

Firstly, States can exercise extraterritorial jurisdiction over individuals abroad as a result of ECA established by their armed forces (e.g. as a result of occupation).3 Secondly, States can exercise jurisdiction over individuals through the effective control (authority) over individuals through acts of their State's agents (SAA), e.g. through detention or arrest.4

The question has to be addressed, whether 'direct action' like bombing or shooting as such, fits within these (extra)ordinary instruments generating jurisdiction.5

Having thus established the threshold of applicability, the second stage involves the analysis of the regime itself. Concentrating on the principle and most elementary human right – the right of life – the applicable rules are then analysed and determined.

1 The paper concentrates on three treaties: the European and American Conventions on Human Rights, and the International Covenant on Civil and Political Rights.
2 Derived from: UK Court of Appeal (2005), Al Skeini ea (Appeal).
3 ECHR (1995-03-23), Loizidou (Prelimanary objections).
4 ECHR (2003-03-23), Öcalan; HRC (1981, Jul 29b), Lopez Burgos, § 12.3; HRC (1981, Jul 29a), Celiberti de Casariego. Applied in: IACommHR (2002, Mar 13), Detainees in Guantanamo Bay
5 See inter alia: ECHR (2001-12-12), Bankovic ea; ECHR (2004-11-16), Issa ea; ECHR (2007-05-31), Behrami & Saramati; ECHR (2007-06-28), Pad; IACommHR (1999, Sep 29), Brothers to the Rescue.

RESPONSIBILITY IN MULTINATIONAL PEACE OPERATIONS AND QUESTIONS OF COMMAND AND CONTROL

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In multinational peace operations states often put their troops at the disposal of an international organisation. In these kinds of operations questions of international responsibility are largely linked to the notion of control over a specific conduct. From an international responsibility perspective, conduct, or omissions, will generally be attributed to the state or international organisation that exercises 'effective control' over the conduct in question.

What amounts to 'effective control' in a military context? The terminology regarding control over military forces is generally expressed in terms of different levels of command and control. It is the intention of this paper to briefly account for the different notions of control in peace operations in order to enable an understanding on how 'control' in the military context is to be translated in an international responsibility perspective.

THE COMPLEX NATURE OF MORAL MILITARY BEHAVIOR HOW COMPLEXITY THEORY CAN BE USED TO ENCOURAGE MORAL DEVELOPMENT IN THE MILITARY

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The main motivation underlying studies of moral decision making is to increase the understanding of moral behavior and thus make it predictable and even controllable (Rest 1986). However, the multiplicity of research findings in this field points to the complexity of moral behavior. This limits its predictability and controllability. This insight is relevant for military organizations. Military personnel encounter moral issues under ambiguous and stressful situations. And military organizations have a long history of dealing with chaos and order, at times trying to overcome chaos and impose order, at other times accepting a certain level of chaos.

The author discusses the unpredictability of moral behavior and asks whether it is impossible to design organizational measures to encourage moral responsibility military behavior. She turns to insights from complexity theory to argue that the military organization can be designed to encourage moral behavior while at the same time accepting the unpredictable and uncontrollable nature of moral behavior, and to present a perspective on moral behavior that emphasizes the possibility for moral development as a result of real-life experiences with moral issues and feedback processes.

INVENTIVE PHASES OF TECHNOLOGY INNOVATION – AN FLYING IN A STEADY BREEZE OR HANGING IN A LULL: IS THE LAW OF THE FLAG AN ANACHRONISM?

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The purpose of the present paper is to consider whether the concept of the law of the flag still offers a useful analytical tool for describing the legal status of foreign armed forces present abroad at the invitation of the territorial sovereign. Whereas in the past the term 'law of the flag' was used extensively by writers on international law, it seems to have fallen out of fashion in more recent times. Bucking this trend, a few years ago the Italian courts relied heavily on what they called the 'principle of the law of the flag' in proceedings arising out of the fatal shooting of Nicola Calipari, an Italian military intelligence officer, by US armed forces at a roadblock in Iraq in March 2005. The present paper suggests while that the judgments rendered by the Italian courts in the Calipari case fail to do justice to the complexity of the legal position of foreign armed forces, they nevertheless offer an opportunity for a rich engagement with some of the fundamental questions raised by the deployment of foreign forces abroad.

Leadership, Command and Control

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RULES OF EMOTIONAL ENGAGEMENT (ROEE) BOUNDARY SPANNERS MANAGING EMOTIONAL COMPLEXITY IN MULTINATIONAL MILITARY CONTEXT: A SOCIOLOGICAL PERSPECTIVE

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Boundary spanners such as liaison officers and military observers facilitate collaboration between groups and organisations. The aim was to study how boundary spanners manage collaboration processes in irregular warfare with a focus on their own and other's emotions. A grounded theory approach was used and 21 interviews, of which 19 are military officers from the Swedish Armed Forces, were performed. The qualitative analysis resulted in a hierarchical system of meaning units, codes, categories and the following three superior categories: The Emotional Arena (context, actors and collaboration task), Emotions (such as fear, anger, frustration, pride and love) and Rules of emotional engagement (act as a tranquiliser/calming, avoid to be emotionally exposed and keeping emotional distance between oneself as individual and the occupation boundary spanner. Results are related to existing organisation theory. Implications of selection and training are discussed.

COLLABORATION AND LEADERSHIP IN A COMPREHENSIVE APPROACH

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In a Comprehensive Approach (CA) to crisis management close collaboration between diverse parties - military, governmental, public - is crucial to realize stability and development. Several studies suggested that collaboration and leadership in such ad-hoc formed collectives are critical for successful operations. The questions we address are: (a) what are the fundamental characteristics of collaboration and leadership in these collectives; (b) what are the critical competencies required; and (c) in what way can we timely improve and develop the trust, understanding and respect between the diverse and sometime opposing interests and stakes in order to achieve effective collaboration. Based on a literature review on leadership and collaboration in ad hoc teams, interviews with operational commanders, gaming and training concepts we are developing a fundamental set of principles to apply in supporting concepts such as CA Competence Development, Swift Team Effectiveness and Maturity development (STEAM), Team Orientation Assessment. We are developing a training and experimentation environment and we will propose a collaborative effort to gather data.

THE EFFECT OF BRIEFINGS IN MILITARY OPERATIONS ON TEAM INTERACTION AND PERFORMANCE

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Military operations are characterized by their complexity, hostility of environment and highly specialized operators involved. Because of the increasing environmental and technological complexity, it is necessary for goal achievement to have teams with specialists creating differentiated knowledge. This composition puts more strain on team operation: besides knowledge about the situation, knowledge about when to use which specialist is vital (so called Transactive Memory System (TMS)).

In military operations, briefings are given prior to missions to explain the situation, state goals, discuss possible threats and what-if scenarios to optimally prepare the team. Therefore, the briefing will have influence on TMS and team performance.

In this research, the influence of both the briefing and the specific kind of situation on TMS and performance will be measured. The results can be used to improve briefings and according to the needs of specific operations, both in training and in the field.

INTERFACING OODA-RR AGENTS TO THE C3FIRE ENVIRONMENT

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Since the end of the Cold War, operations involving Western military forces have taken the form of multi-cultural coalitions. Experience shows that military forces have much to learn about multi-cultural cooperation. In particular, there is a need to understand how to organize, command, and control multi-cultural coalitions. Social simulation is a suitable, mature means for gaining this understanding.

C3Fire is an environment that allows training in and controlled studies of co-operation and coordination by human Command & Control (C2) teams in dynamic environments. C3Fire is well established, having been incorporated into the University's courses and used extensively for research into C2 decision making by small groups drawn from multiple organizations and cultures.

Since 2005, the Netherlands Defence Academy (NLDA) has been developing an architecture for intelligent agents based on Boyd's Observe-Orient-Decide-Act (OODA) model of the C2 process. The agents can be grouped into teams with shared behavioural norms, modelling cultures. Development has reached the stage where the architecture needs to be tested within a simulation environment. C3Fire is an obvious candidate. Integrating the agents into C3Fire would not only test the agent architecture, but also open the opportunity for C3Fire trainees and research subjects to interact with (simulated) team members from other cultures.

The purpose of this paper is to propose an interface between C3Fire and the NLDA's rationally reconstructed OODA (OODA-RR) agent architecture that would enable mixed human-agent simulation of multi-cultural coalitions. The paper identifies the requirements that C3Fire and the agent architecture would have on one another, describes the C3Fire external agent interface, and outlines the protocol for communicating with the C2 training environment in terms of signals and actions, the shared world-model representation, and simulation support for the agent's internal representation of the current state of the simulated world. Finally, some applications will be sketched.

REPRESENTING ORGANIZATIONAL CULTURE AS AGENT NORMS

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Modern military operations involve coalitions of military and non-military organizations, each with their own organizational culture. Misunderstandings can arise when information is shared across cultural boundaries, and, in the worst case, this could lead to the loss of life. In the multi-agent systems literature there is more than a decade of experience of simulating social processes. In particular, there is research into giving agents norms and values based on their roles in groups. A major issue is how to acquire the knowledge needed to represent norms and values in real-world applications.

The purpose of this paper is to present a technique for representing organizational cultures as agent norms by analyzing the patterns of inter-agent communications in coalitions. The paper reviews the theory on agents, groups, roles, and norms, outlines how organizations can be represented as sets of agents, and shows how norms can be extracted from inter-agent communications. Illustrative cases are taken from computer intrusion detection, from astronaut operations on the Martian surface, and from the events of September 11, 2001.

INFORMATION REQUIREMENTS AND CONTEXT IN THE MARITIME ENVIRONMENT

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Information requirements and context play important roles in co-operations. Co-operations require all participants to share relevant information in order to collaborate in a challenging environment. Information requirements and context are key elements when we are trying to achieve Situational Awareness. In the MNE5 MSA* Experimentation we discovered issues affecting information sharing: The Problem Solving Process created during the Experimentation supports operators in achieving Situational Awareness. This article presents the Problem Solving Process and results from the Experimentation about how information requirements and context affect operators' work practices and decision making. The article addresses the question why the information context is a crucial part of that complexity of Situational Awareness and how collaboration tools can support achieving the goal of mutual Situational Awareness.

*MNE5 MSA (Multinational Experimentation 5 Maritime Situational Awareness) Fast measurement of stress reaction level

FAST MEASUREMENT OF STRESS REACTION LEVEL: THE EMOTIONAL STRESS REACTION QUESTIONNAIRE

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Cognitive appraisal of meaning and significance in a given situation affects the quality and intensity of the emotional reaction. The Emotional Stress Reaction Questionnaire (ESRQ) maps the emotional reaction of an individual in less time than one minute. The ESRQ consists of 14 emotion words designed to measure the different cognitive appraisal categories as follows: irrelevant, benign-positive, challenge, and harm, threat or loss. Drawing on the inverted U-relationship between stress reaction intensity and performance level, predictions can be made regarding an individual's psychological action potential in a given situation. A presentation of how the ESRQ is derived from coping theory will be given. The process of instrument development will be described and instructions for usage will be given. Published as well as not yet published data from soldiers and officers will be presented which indicate significant associations between ESRQ scores and level of performance.

SCIENTIFIC KNOWLEDGE CAN BE ACTIONABLE: A CASE STUDY

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A multi year project for support of change within the Swedish military intelligence function has led to insights about research methods that both support mutual learning and action. Researchers and military practitioners together agreed on what constitutes useful, egitimate knowledge and which means worked collaboratively to arrive at it. The ethnographic research design created less hierarchical relations between researchers and informants. Practitioners valued this research strategy and its results. The project raises questions about what constitutes intellectual labor in the military and what the academisation of the military profession should mean. Further, a service orientation within research, not the traditional product orientation, can have significant value for the military. This project led to a model for a systematic, scientific exploration of military practice, one that supports further professionalization of the military.

MORAL STRESS IN THE SWEDISH ARMED FORCES

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The Armed Forces are regularly deployed to conflict areas characterized by war and crisis-like conditions. Thus, officers are assumed to be confronted with morally tough decisions and are, as such, suggested to be at high risk of being inflicted by moral stress. Moral stress refers to painful feelings that tend to arise during:

1) situations characterized by more than one right thing to do, and
2) situations where the individual is unable to act according to his/her own conscience due to institutional obstacles.

This presentation focuses upon the results of a study on moral stress within the Swedish Armed Forces. Data was gathered through qualitative semi-structured interviews. Both low- and high ranking officers, possessing vast experience from international service, participated. The data was analyzed according to a grounded theory approach. Aspects that will be emphasized are moral appraisal/coping, moral stressors, moral stress reactions and leadership aspects. Practical implications will be discussed.

A COMPANY COMMANDER'S NETWORKED EXPERTISE IN THE FINNISH DEFENCE FORCES

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The aim of my paper is to analyze a company commander's activity within his workplace community and external professional network in the Finnish Defence Forces (FDF) context. FDF's company commander's expert activity is thus networked and relational in nature. Such expertise can be seen as social interaction, knowledge sharing, and shared problem solving in interaction between individuals, communities and broader networks.

These dynamics can be analyzed with the help of social networked analysis (SNA). Within SNA, these networks fall under the concept of egocentric networks. Workplace communities in FDF are not isolated from one another. Their development and pursuit of innovation depends on the fact that many of the participants are also members of other professional communities extending beyond the professional organization in question.

COMMAND TEAM EFFECTIVENESS

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Teamwork has become one of the core competences required of military commanders. The goal of this NATO study was to develop and test a model of command team performance that could be used by commanders to improve their team effectiveness. Based on an extensive literature review, we developed a model of critical factors of command team effectiveness, comprising task and team conditions that affect task and team processes, leading to task and team outcomes. From this model, we constructed an instrument to measure the concepts. We tested the model both in a longitudinal study during a military exercise and in a large survey study among officers from several countries.

The results showed that the basic model holds in general, but need some modifications. Furthermore, we explored to what extent the model differed between countries, services, and mission types, and function in the team. Finally, based on comments by the respondents and the data, we improved the usability of the instrument.

Military History

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THE CAMPAIGN AT WENDEN/CESIS 1919—THE CLIMAX OF FREIKORPS POWER IN THE BALTIC REGION

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In late 1918 the victorious Allied forces encouraged the German forces to stay in the Baltic region in order to prevent the new Baltic states from falling into the hands of the Bolshevik government in Russia. The outcome was the recruitment of a large Freikorps force from German forces already stationed in the Baltic region and recruits from Germany seeking adventure and land. The force, called the "Iron Division," was one of the most effective of the "Freikorps" forces created by Germany in the aftermath of World War I.

The Iron division would eventually become a force of over 8,000 men under the command of General von der Golz. In early 1919 the rapidly-created force played a key role in driving the Russians out of much of Latvia. In May 1919 the German Freikorps occupied Riga. By this time, the original mission of the German forces had changed from being a defender of the Baltic people against the Russian Bolsheviks, and had transformed itself into a force trying to reestablish German control over the whole region.

In June 1919 the Germans advanced into Northern Latvia against a combined Estonian and Latvian force at Wenden/Cesis and were forced back. This battle signified a maturation of the Estonian and Latvian states and armed forces and was a key event in the establishment of the two nations. It was this defeat by the Baltic forces, combined with Allied political pressure, that forced the Germans to accept an agreement that placed their forces under Allied control and later compelled the Germans to withdraw from the Baltic region. By late 1919 the German position had come full curcle—first they had supported the Latvians, then fought them, then became allies again.

This study will examine the German campaign of June 1919 first as a military campaign and then in the broader context of von der Golz's intentions, the position of the German government, and the role of Allied political action. The whole affair is an interesting example of the subtle interplay of politics and force in which there were several competing players. The study is based on documents taken largely from the German archives.

FOR AN APPLIED MILITARY HISTORY

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IFukuyama had predicted the end of history he fortunately made a mistake. But historical research evolved a lot for 20 years to survive. The military history does not escape the revival and Canada, in several domains, innovated in the field of military history. We wish to open the discussion about our project concerning an Applied Military History Research Center, which would allow, according to us, to ensure a future the research and the teaching of military history in these time of rationalization and cuts of funds for projects considered too theoretical. What "applied" military history? What are its fields of investigation? Which must-being its priorities in research topic? Which must-being its partners? We shall try to present these issues and to provide some answers through examples of research in security and strategic studies, with some institutes or centers dedicated to research military history and finally the few studies on the matter.

EARLY 18TH-CENTURY NAVAL CHEMICAL WARFARE IN SCANDINAVIA AND CHINA

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When the Danish and Swedish navies emerged in the 16th century, not only did they grow in size and strength very rapidly, they also experimented with unexpected weapons such as pyrotechnics and rockets, the latter used as weapons and not only for signalling or illumination purposes. The Scandinavian navies also experimented with chemical warfare. By the early 18th century, incendiary shots could be made to generate poison gas. This may be the earliest reference outside China, where such weapons were common, to poison gas in naval warfare, and it pre-dates by far Cochrane's suggestion to the British Admiralty in 1811 to use "stink vessels" for chemical warfare. While these innovations were superseded by developments in artillery that by the late 18th century made pyrotechnics obsolete, two surviving early 18th-century manuscripts, one in Karlskrona and one in Oslo, describe, in some detail, these forgotten weapons.

THE SOVIET PROSECUTION OF MEMBERS OF JAPAN'S WORLD WAR II BIOLOGICAL WARFARE PROGRAMME

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Further information on Japan's World War II biological warfare (BW) programme continues to be made available. Japan's wartime activities remain a source of controversy and tension in that country's relations with China. The best-known component, Unit 731, was based at Ping Fan near Harbin in northeast China under the command of Shiro Ishii. The programme's activities included human testing and deployment of BW munitions on mainland China, such as Yersinia pestis (the causative agent for plague). After the war, some members of Japan's BW programme were prosecuted by the Soviet Union in the Khabarovsk War Crime Trials. The United States granted immunity to Japanese BW programme members in exchange for information.

At the close of World War II, the United States took possession of much of Japan's general archives (including some BW-related material), most of which were returned several years later as part of a reconciliation process. Controversy has continued with regard to how much of the BW-related information was retained or copied by the United States. Dr Kei-chi Tsuneishi published two books in the 1980s describing the programme based on important Japanese material (these books were later translated into English). Most of the research in English has been published by Professor Sheldon H. Harris. He began researching Japanese World War II BW activities from 1984 until his death in 2002. The Soviets published shortened proceedings of the Khabarovsk trials in 1950. In April 2007 the US Nazi War Crimes and Japanese Imperial Government Records Interagency Working Group (IWG) published their findings. More than 8.5 million pages of archival material from US agencies were identified, much of which has been digitized. The Unit 731 Criminal Evidence Museum released a bilingual Chinese-English publication to commemorate the 60th anniversary of the end of the war. The proposed paper would also reflect some research by Japanese researchers over the past 5 years or so. Finally, some Chinese Foreign Ministry documents were also analysed in a 2010 peer-reviewed journal.

The proposed paper would introduce a number of items from the Russian State Military Archive concerning the interrogations and trials of the Japanese participants. It would survey the activities of Japan in the biological area, and review the type and sources of information currently available. It would also identify the principal actors in the programme and those who undertook to evaluate it. The interests and perceptions of the states concerned would be described. Finally, analytical challenges specific to the assessment of BW activities in general and those carried out by Japan in particular would be reviewed, including interrogation techniques and their relation to intelligence tradecraft.

IT IS ALL ABOUT TRUST – AUFTRAGSTAKTIK IN THE CONTEXT OF FINNISH OPERATIONAL ART AND TACTICS

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This paper seeks to analyse, whether Auftragstaktik, the directive control, was (is) an essential part of Finnish tactical thinking. The experience of the WW II was in many controversial. Although the GHQ, and particularly the C-in-C, exercised tight control over the formations, relatively little criticism was aroused after the war. Yet, the post-war era saw the tactics gradually shifting towards emphasising subordinate's initiative as the Finnish Auftragstaktik matured along with the evolution of territorial defence system. One of the main lessons of the war touched the depth of the battlefield: the only way to counter a deep attack was a deep defence. As a result, the defensive tactics focused previously on the holding of the main defence line, were altered. At the same time, encountering attack replaced a deliberate set-piece attack in the manuals. The main sources for the paper include documents of the Defence Staff and the War College, manuals and contemporary military periodicals.

A MILLION-MEN ARMY FOR THE NETHERLANDS

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This paper contributes to two discussions in the Netherlands. The first discussion relates to the question of the military aspect of the Dutch national identity. The Dutch participation in the war in Afghanistan has made the problem of the Dutch 'military identity' relevant again. Traditionally the Dutch consider themselves a peace loving trading nation with a great interest in the development of international law. But now and again the Dutch come to the fore as a nation which is prepared to fight and to invest heavily in modern armed forces. The second question is how, historically, the Dutch can be seen as 'peace loving', taking into account many centuries of war in colonial areas and preparing for war in Europe. Recent studies on Dutch war preparation in the 20th century show a remarkable similarity between the Netherlands and the main continental powers, although the Dutch were neutral and had no territorial ambitions in Europe. Was Holland exceptional as a small neutral power in the way it prepared for war and the way it fought in Asia? Some recent conferences have shed some light on this question, but a lot of research needs to be done. This paper focuses on Dutch voluntary military service and civic pressure groups for more involvement of the total (male) population in the armed forces. Those groups had their heydays during the Boer wars in South-Africa (the Boers were hugely supported in the Netherlands) and the First World War.

The movement for the introduction of some kind of general conscription (with elements of voluntary service) dated back to 1899-1900 when the Dutch experienced both their heyday of nationalistic and imperialistic fervour and their weakness as a small state looking at the relative ease with which Great Britain annexed the small Boer republics in South Africa. From a military point of view, this period was important because as one of the last states in Europe, the Netherlands introduced personal conscription (1897). This was part of legislation which reformed the army in such a way that it more closely resembled that of Germany. Also, it marks the end of political strife on army organisation and conscription, which had lasted over four decades.

Personal conscription based on drawling lots to fill a yearly contingent did not satisfy especially liberals who proposed a 'national defence' in which the entire male population would participate. Rejecting the small-scale copy of the German army that, in their eyes, the Dutch army had become, they wanted a truly Dutch army, more one with the people and more a maker of Dutch national cohesion. This army had to include all layers of the population and find its strength in a tough defence in the wet Dutch polder landscape.

Remarkable is that both military men, politicians, academics and entrepreneurs shared the ideal of some kind of 'peoples army'. In 1900 they established the 'society for national strength' (Volksweerbaarheid), which flourished for a small number of years. Remarkably this idea of a total merger between populace and army resurfaced during the First World War. The Netherlands remained neutral but the proximity to the belligerent sates and the frontline made the country stay on a full war footing until 1918. The Dutch army was the only neutral army, which did not partially demobilize during the war. But the existing laws did not provided enough trained soldiers, so in 1915 Parliament discussed a law to enlarge the army and abolish the drawing of lots for conscripts. Although the law was past, for a loud voiced opposition, it did not go far enough. In the spring of 1915 again a coalition of officers, prominent entrepreneurs and politicians emerged to enlarge the army even further than the lawmakers were prepared to go. Some pamphleteers called for the establishment of a one million-man-army, reflecting the change in warfare (total war). After 1915 this broad coalition disappeared quickly, only a small number of supporters of the idea remained active. But the idea of making men voluntarily choose for the army did not disappear, certain units were established, but the total number of volunteers did never exceed 10.000.

Although in 1918 the Netherlands possessed half a million trained men (on a population of 6 ½ million), there was no public or popular demand to keep the army even that size. But in the first post war years, full of uncertainty, publicists kept the ideal of a merger between people and army in the public eye. The war had proven their point, as the main lesson of the First World War was, in their eyes, the strengthening of the nation through unity of effort on economic, social and military topics. The pacifism of the 1920's swept this way of thinking away, it became very marginally.

In my article I hope to show how the Dutch, being a nation of commerce and international law, also knew – when certain conditions were met – a Dutch way of militarization of society.

Military Technology

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TACTICAL OPTICAL INFORMATION SYSTEM – IMPROVING THE SITUATIONAL AWARENESS INSIDE AN APC

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Inside armored personnel carriers, APC's, such as e.g. Hägglunds CV90 or Mowag Piranha, the possibilities for looking out are rather limited. That is especially true for the soldiers being transported inside the personnel compartment. Because of this, the soldiers are in effect expected to put themselves into harms way with very limited knowledge of what is happening outside the vehicle. One possible way to improve the situational awareness inside an APC is to have screens showing live images of the outside environment. The current investigation utilizes a set of carefully placed cameras connected to screens streaming live images inside the vehicle. It is found that this will significantly improve the situational awareness of the soldiers inside the APC. Field trials conducted in a realistic environment show that a careful placement of the cameras and the screens will increase the safety, and the efficiency, of the soldiers when they dismount the vehicle.

DECISION MAKING IN A MILITARY ENVIRONMENT USING CONTEXT AWARE MANAGEMENT/POLICY MANAGER MODULE AND CONSTRAINT-BASED MODELLING TECHNIQUES

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This research focuses on design decision making algorithms using incomplete and potentially unreliable information. We extend context-awareness by utilising a Constraint-based Modelling techniques in creating a localised, rule-based decision making engine in every computing node to adjust that node's operation in its dynamic environment. Rules from various sources, such as end-user, network management, or mission controller, shall be merged dynamically for the basis of decision making. When malicious information and compromised nodes are also taken into consideration, we need a possibility of revoke node's decisions and take corrective actions. Hence, we will have a decision making engine in every node that remembers how the decisions have been made and learn from its own experiences and redo or revoke decisions if needed.

In our Context Aware Management/Policy Manager (CAM/PM) -architecture, all operations of a node will be controlled by a local policy manager -module. The policy manager is attached via a management interface with all protocol layers and applications. In addition, the local policy manager may exchange information with its counter parties on the other neighbouring nodes and a central network management system. Hence, the policy manager is capable of adjusting the node's behaviour based on, for example, the needs of the user, requirements of the applications, the state of the ubiquitous environment, or common needs of the network.

The policy manager makes its decisions using its locally stored rule database. Since the rule-set can be arbitrary large, and complex, and especially since the rules are dynamically updated/changed, we will benefit largely the constraint-based modelling techniques in maintaining the rule-set consistent.

Typically a node has only limited and partially inaccurate knowledge of its situation in the wireless environment and it is, in most cases, infeasible to have a centralised decision making entity. Hence, this leads into an excellent research challenge to study various optimisation problems.

This research area opens new challenges in developing adaptive and intelligent mobility management solutions where mobility-aware applications can tune up their operations in their dynamic environment and various middleware layers can interact with each other and with applications. Especially, possibility to predict future changes of a node's environment, such as dramatic change on the radio link, will open new, interesting research problems. Here, we see already a trend from centrally controlled radio networks to decentralised networks and locally managed ad hoc networks. Further development goes towards learning systems where, first, the nodes will learn from their own experience, but later on they can utilise also the experience of the other nodes that have been in a similar situation.

This architecture requires also strong security solution since majority of the decisions are made automatically to minimise the need for user intervention what is either impossible or undesired. Hence, the information integrity, strong identification of entities, management of trust, and dynamic authorisation are crucial features. One of the key features is a dynamic trust management on other nodes and information. In a simplistic case, dynamic trust management can be used for preferring those services or neighbours that have previously given good service to this node. In a more sophisticated case, all decisions made by a node are stored into a local database together with decision rationality. Then, if the node looses its trust on another node or a piece of information, it is possible to revoke related decisions and perform corrective actions.

We foresee wide variety of applications for our CAM/PM -architecture. Traditional computer systems are far too complicated to be configured by a normal end-user. Instead, computers should be self-configurable or remotely configurable, as our architecture enable multiple entities to set operating rules for the same node in a consistent manner. On the other hand, in high-security environments, such as military networks, our architecture enables new approaches in adapting operation of nodes in very dynamic and hostile environment, where a previously well-behaving node may get compromised in seconds and become an attack weapon of the enemy.

The main contributions of this research are (i) A new rule-based decision making system for every computer node; (ii) Integration of dynamic trust management on the decision making system with possibility to perform corrective actions after decisions with incorrect inputs; and (iii) Locally optimised decision making system that is capable of learning from own and other nodes' mistakes.

THE CONCEPT OF CHECKPOINTABLE NOMADIC APPLICATIONS IN WIRELESS MILITARY-GRADE AD HOC NETWORKS

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Survivability and service continuity are important aspects in military environment. Traditional mobility management solutions are not capable of handling situations where a computer that were currently running applications crashes or is otherwise disabled. We propose a novel architecture where an application can make backup copy of itself (i.e., to checkpoint), hibernate, and migrate from one computer to another and thus survive even if the node where the application was running fails for any reason. The main operating principle is copied from fault-tolerant multiprocessor database systems.

Secured mobility management is an elementary function of nodes on wireless military networks. Traditional mobility management guarantees reachability to/form a mobile node despite its current point of attachment and movement of the nodes in the network. However, the applications are bound to run on those computers where they were originally started. In our nomadic application –concept,

we have created a novel idea to extend traditional mobility management concept to apply also with applications, user interfaces, files, etc. In practice, this means that services can be fulfilled using the most optimal resources that are currently available in the dynamic environment of the user.

When an instance of a service is created, the system shall automatically find out the optimal resources - such as computing power, user interfaces, network connections, and storage capacity - that shall be used at the moment as a Virtual Computing Environment (VCE). Since the environment is dynamic where some of the resources may disappear or new ones will become available, the architecture will update its VCE by adding or removing any computational elements.

We use a secured, integrity protected message container that transfers on-the-fly a program together with its context, its user interfaces, files, network connection, or usage of other resources from one computer to another. If the application is not currently needed, or it is unable to perform its duties in the current environment, it will be hibernated and can be resumed at an updated VCE. In order to survive failures on physical computer nodes or communication links, we have introduced a checkpointing mechanism that enables a backup copy of the process to continue if the original instance is abnormally terminated.

Originally, this architecture was designed for the client side of the client-server architecture, but it can be used also for server side and peer-to-peer applications.

WEARABLE IDENTIFICATION DEVICE AND RIGHTS MANAGEMENT MECHANISM IN A WIRELESS AD HOC NETWORK ENVIRONMENT

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Management of identities and rights in military installations is a crucial part of successful operations. It is not feasible to assume soldiers to use user-ids, passwords or smartcards in a combat situation. Instead, we should use more traditional means of showing the soldier's intentions and needs, but handle also the security issues, such as authentication and authorization. One of the simplest means to indicate our intentions is to use touching, e.g., the soldier clearly indicates his needs by taking a rifle on his hands or grapping a steering wheel of the vehicle. To identify both parties, check the proper authorization, and initiate authentication process, we can use human skin as a communication media via which all information can be carried between the computing devices. Once the initial authentication is performed via skin-based communication, rest of it can be done using any means such as short-range wireless links.

In this paper, we illustrate a concept of wearable identification device (WID) that can be used in a combat situation to identify soldiers and enabling them to use any device of their army provided that the computer system can automatically validate their authorization. Hence, it is possible to build smart equipment that can be used only by the persons of own army but which cease to operate on the hands of the enemy. We also illustrate how more complex rights management, such as shared usage of equipments of coalition forces, can be implemented in this architecture.

The physical implementation of WID is a wrist-watch like device that is carried on a wrist of the soldier and it has its own simple user interface. Own user interface is needed since other surrounding equipments may have been compromised and may otherwise easily compromise also the user. Hence, operation that requires user identification, authorization, rights delegation, etc. should be performed using trusted tamper-proof device that is always carried with the user. WID can be used also for other purposes such as health monitoring and locating the user.

THE NEW NAVAL SHIP CODE'S EFFECT ON WORK TO MINIMISE RISK FROM ARMED ATTACKS

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The Nato Standardization Agency (NATO/NSA) is proposing a Naval Ship Code (NSC) that can be applied to surface naval vessels and other vessels operated by the armed forces or agencies of a state. The NSC is optional and based on, and benchmarked against, International Maritime Organisation's conventions and resolutions.

The NCS cover areas such as ship controllability, engineering systems, fire safety, evacuation, communications and navigation. The code does not include measures specifically designed to address the effects of armed attack.

The covered areas in NCS are however also very important when the effects from armed attack is to be minimised. This work investigates how the NCS will effect, and interact with, measures to ensure survivability under attack. Based on two qualitative case studies this paper exemplifies the NSC's effect on the vessels total safety. The case studies presented are ballistic protection on smaller naval vessels and bridge configuration to minimize effects of attacks.

The result is also discussed in respect to the International Ship and Port Facilities Security Code (ISPS Code).

THE IMPORTANCE OF SYSTEMS ANALYSIS AND OPTIMIZATION FOR A BETTER UNDERSTANDING OF OPERATIONAL PLANNING METHODS

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The education of staff officers at the Swedish National Defence College (SNDC) relies to a significant part on the NATO Guidelines for Operational Planning, GOP, and the Comprehensive Operational Planning Directive, COPD. These planning methods are to a great extent based on Systems Analysis and Optimisation which are used as tools for planning military operations. This study presents an overview of the underlying methods for GOP and COPD. These planning methods are also compared to present methods in Systems Analysis and Optimisation. We present some examples of how Military-Technological aspects could be incorporated in the education in Operational Planning. We emphasize the importance of studying Systems Analysis and Optimisation in order to achieve a better understanding of operational planning methods.

THE TARGETING SYSTEM FOR SNIPERS

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Sniper's shooting exercising is favored on natural, possibly diverse terrain intending to simulate the scenario in which the sniper is expected to operate. It is further desirable to present shooting results to the marksman immediately to support direct evaluation and thus the next aiming attempt. A special target, a digital unit and a monitor comprise a new practical shooting training system for snipers. This targeting system provides instant shooting results, is portable, can thus be carried and deployed fast by the sniper anywhere and is simple to operate. The specially designed target detects and locates the bullet at impact, passes this information on to a digital unit to be processed and transmitted via radio waves to a monitor placed next to the marksman at the other end of the exercising ground hence simulating on the screen the bullet hitting the distant target.

WAR FIGHTING CAPABILITIES AND MILITARY-TECHNOLOGY INTERACTION

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In modern warfare the war fighting capabilities dependence on technology is internationally undisputed. Starting from the currently used definition of the subject of Military-Technology in Sweden and Finland this interaction will be analyzed. This will be based on Swedish and Finnish doctrine. An elaborate discussion about how progression in the subject of Military-Technology is achieved will be compared to other military sciences. This aims to highlight the current focus on command levels not necessarily suitable for strengthening the war fighting capabilities. Finally, the Military-Technology connection and contribution to the war fighting capabilities will be discussed and emphasized. The shortcomings and pitfalls of the currently used methods will also be discussed. Furthermore, the necessity of having a Military-Technology perspective to increase quality and relevance in officers education will be stressed.

DEVELOPING AN OODA-BASED OPERATIONAL PROCESS MODEL FOR THE NETHERLANDS ARMED FORCES C4I ARCHITECTURE

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Until recently, the Netherlands armed services used to specify, acquire and develop C4I systems independently. These activities have now been unified, but have yet to be underpinned by a joint C4I architecture. The Netherlands Defence Academy embarked on an effort to develop a C4I architecture for the Netherlands Armed Forces.

In a section about the theoretical context, the Netherlands Defence Information Architecture (DIVA), of which the C4I architecture is a sub-architecture, will be compared with the US Department of Defence Architecture Framework (DoDAF).

The Operational Process Model being developed consists of two views: a Hierarchical Process Diagram, which is a comprehensive overview of all operational processes, and Information Flow Diagrams which model specific processes. For the latter, Boyd's OODA Loop (1996) is being used for modelling of internal processes. Its suitability for this purpose is a research issue. The Joint Air Defence process is currently being modelled.

EXPERIMENTATIONS IN PRE-PRODUCT DEVELOPMENT

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The major shortcoming of computer science is the belief that various "living labs", "proof-of-concept demonstrations" and other illustrations of the idea are a sufficient proof of its worth. The only way to fully exploit research results in product development is to be able to explain the meaning and consequences of the results. Therefore, a pre-product development phase is needed to ensure that the results are reliable and justified. The ultimate goal is to minimize the risks in product development. This paper presents experimentations as a part of the pre-product development methodology called Innovation prototyping. Experimentations in it are focused, systematic and require a sound methodology. The key is avoiding quick and dirty hacks that do not allow analysis, do not prove anything and do not allow reuse. The result is a coherent rationale for product development, not a set of random ideas. Military applications are challenging enough for pre-product development cases.

UBIQUITOUS COMPUTING IN MILITARY CONTEXT

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Even though ubicomp is nowadays usually linked with entertainment and experience industry, the original ideas on calm technology, that does not hinder performing the task at hand by making users to divide their attention, allow utilizing the paradigm in serious professional context. If time is a critical factor for success, as in military applications, ubicomp can provide solutions for accessing, filtering and managing the lifecycle of critical information. The three key features of ubiquitous computing are:

1. Availability and utilization
2. Invisible computing
3. Concentrating on the task

The key advantage of ubicomp is that it allows, with careful designing, preparing and indeed taking advantage of situations when the terminals (or users) are isolated. The paradigm aims to answer a fact of real life: the services must be provided in some form even though everything changes dynamically all the time when the service is being used, and the conditions are often everything but optimal.

NAVIGATION OF AUV-SUBMARINES USING FLOATING SMART DUST

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Navigation of submarines is a complex problem. GPS is not working below sea level. It is difficult to recognise objects on the sea bottom; usually no clear objects are available as a basis for context awareness. Usually beacons will be used such as buys, attached to the sea bottom broadcasting sound signals. In the current proposal we research the possibility to use smart dust to navigate UAV-submarines. Smart dust is a sensor network of small battery-powered computers (nodes) scattered throughout the environment to collect sensor data, such as light, temperature and vibration. The idea is to attach the node to a floating device. Once scattered over the water surface the floating nodes will start up to set up a wireless ad-hoc network. Nodes are able to communicate with their neighbours and a message can be routed from node to node in a multi-hop way. The distance between nodes is flexible. If nodes drift away they are out of reach. The distance between nodes is determined by the strength of the radio-signal. All the nodes compose a dynamic topological map. Every node is not only to communicate above the water surface but are also able to broadcast a sound of a specific frequency under water. This signal can be used to route UAV's. Every UAV has access to the network including the structure of the topological map. An object or a dangerous area can be localized on the map.

FREE SPACE OPTICS IN THE USE OF THE FUTURE FORCE WARRIORS

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Several nations develop their Future Force Warrior (FFW) concepts to meet the challenges of the conventional future battlefield, Peace Supporting Operations (PSO), Peace Enforcing Operations (PEO), and humanitarian operations. However, the new role of FFW in data gathering and distribution is not adequately supported by the FFW gear. This requires fulfilling the demands for reliable, constant and ubiquitous communication capability with adequate bandwidth, quick deployment of the communication system and security issues in the communication process. As the electromagnetic spectrum represents a key dimension of the future battle space, the adequate bandwidth and transmission quality must be obtained under the threats posed by environmental problems, electronic warfare and directed energy weapons. Yet, both the VHF- and SHF radios are vulnerable to these effects and offer inadequate transmission rates or bandwidth for transmitting picture frames and substantial data packages. The Free Space Optics (FSO) offers an insensitive means for data transmission. Under the conditions of sufficient optical visibility, FSO technology offers adequate bandwidth for continuous and secure transmission of data.

This paper introduces a novel approach to applying FSO technology as a reliable communication means for distributing urgent SA data in high speed and in forms difficult to detect and intercept. The FSO transmitter can be implemented in weapons' Laser Target Pointer (LTP), which has the advantage of not increasing the weight of the FFW gear considerably. The transfer of raw data for processing in CPs instead of making decisions on the spot enables the use of less trained FFWs. Combined with the processing power of the computers located in the CPs, FSO technology provides raw data to Situational Awareness data analysis. The quick set-up time and simplicity of the FSO-system gives FFW more time for performing the main tasks.

The proposed solution satisfies the needs for a high bandwidth communication for the FFWs: cost-effective, lightweight, reliable, secure, and addresses several threat scenarios involving disturbances in the electromagnetic spectrum, including environmental problems, jamming and the use of the High Power Microwave. Ongoing FFW projects have not investigated the use of FSO technology and can benefit from this study.

Various natural or man-made threats can cause problems to the functioning communication networks of a normal society and in military by paralyzing their various networks. A natural threat to networks in Finland is typically a storm or a phenomenon in the solar system, while man-made threats include jamming, the use of High Power Microwave (HPM) weapons, destruction of infrastructure, acts of terror, and cyber-terrorism.

A solar storm is a good example of the type of threat considered in the paper. Ordinary storms can cause spatially limited and small scale damages; however, a major solar storm may have serious effects on our electrical network systems. A solar storm is a magnetic storm in the sun, and occasionally a solar storm ejects large amounts of electrically charged mass towards the earth. This mass can cause a magnetic storm on the earth in about 24 hours. A major magnetic storm may destroy transformers of the power grids and cause blackouts in large areas. A magnetic storm may also destroy satellites and disable radio communication on high frequencies. The air space will probably be closed as flying through a magnetic storm is dangerous. The threat may be realized in the near future: The NASA issued a warning of a super solar storm for 2012. Even though later calculations have reduced the warning level, a major event is still a possibility. A response to such a threat is constrained by the low occurrence probability and a solar storm must be considered as a special case of a more general type of threat.

The threats addressed in this paper have the following characteristics (while not all characteristics need to be realized in a particular threat scenario): the power grid is down with major electricity blackouts,

radio communication above VHF frequencies contains abnormally high error ratios, manned airborne vehicles are either unavailable or engaged in other missions, unrest increases, and the infrastructure fails. In this kind of setting, the key issue is to obtain relevant SA data for the response personnel. In critical data distribution, the FFWs can serve in collecting and transmitting critical data from hot-spots to the crises management centre or a (CP), which in turn forwards these data to the appropriate personnel (military, fire-fighters, police officers, riot troops, or paramedics).

The FFWs' tasks involve locating the commanded Point of Interest (POI), collecting data and transmitting these data to the CP for further analysis. At the CP, the data can be verified with the existing up-to-date data libraries. It is preferable that the FFWs send raw data as pictures or frames instead of text or voice messages, since pictures provide detailed data for analysis and interpretation. For instance, take the case of approximately 500 unidentified persons in a group in which one person opens fire; this firing incident equals relevant information. This anomaly can then be pinpointed by an FFW, captured as a frame or a picture, and sent to the CPs. By means of ensuing analysis processes, this transmitted information is transformed into analyzed knowledge essential in improved SA and in decision making processes. The paper investigates the possibilities of improving FFW equipment with Free Space Optics technology.

DE-COMP TECHNOLOGY: CONCEPT OF A NEW MILITARY TECHNOLOGY TO COPE WITH POTENTIAL SUICIDE BOMBERS, UNEXPLODED ORDNANCE (UXOS) AND SAFER HUMANITARIAN DEMINING

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Land mines and suicide bombers are terrible "man made curses" of men history and both have one similar element, both are invisible and silent killers without distinguishing between civilians and military personnel. Though there are lots of methods available for demining, but they are not enough to perform safe humanitarian demining, and need something advanced technology to perform humanitarian demining. In the paper I presented an advanced concept of a new military technology which can bring revolution in humanitarian demining and to cope with potential suicide bombers. I named this concept "de-comp technology". I explained we should try to find such rays/ waves [by means of physics research] that could "de-compose" chemistry of all explosives, because every explosive is only explosive when it is being composed in an appropriate proportion, and I believe if we could "de-compose" their chemistry, by using any method, they would be no longer any explosive at all. In the end I explained how concept of this new technology can change the face of modern warfare.

INTERACTIVE TEACHING OF MILITARY-TECHNOLOGY- A PILOT STUDY OF IMPLEMENTATION

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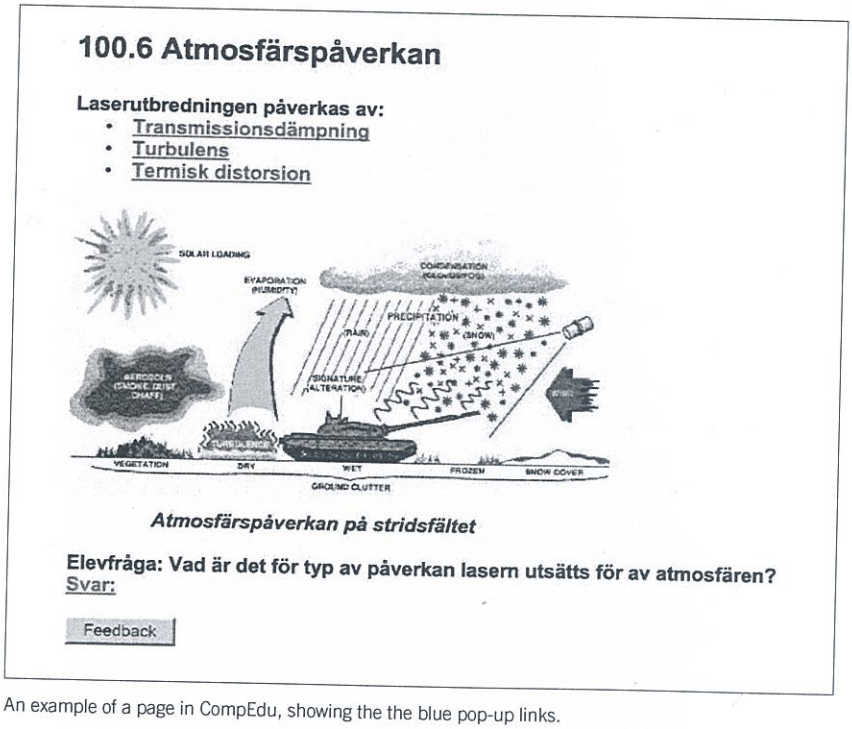
The interactive learning platform CompEdu, developed and used since 1997 at the Division of Heat and Power Technology at the Royal Institute of Technology, has recently been introduced as a new tool for teaching Military-Technology at the Swedish National Defence College. The platform contains different books and chapters where theoretical sections, related interactive simulations, movies etc. are included. In this pilot study, interactive teaching has been tested at the initial training of junior officers at the Swedish National Defence College. Results from a student evaluation of the tool are presented and these results will be incorporated in future implementations of this interactive teaching method on a broader scale in Military-Technology. The students appreciated the freedom of being able to choose when and where to study the pensum and found CompEdu being an excellent tool for facilitating reviewing the chapter before an exam. An outline for future work is presented.



An example of a page in CompEdu, showing the the blue pop-up links.

Security Defence Policy and Strategy

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THE PEACE RESEARCHES NEED A DEFINITE TURN TOWARDS THE HUMANITIES

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The paper starts with a briefing on the peace researches in terms of their scope and position among a wide range of sciences; from the military sciences, the security researches to the peace studies. It is a try to organize all the disciplines by answering the question what methods they are using, those of the science or of the humanities. Next, it provides the evidences why the peace researches need a definite turn towards the humanities. Using tools of the science rather results in endless preventing conflicts.

Yet the approach of the humanities leads toward global understanding and an integral development. Finally, after Prof. Wierzbicka there are provided some "natural semantic metalanguage" definitions of freedom and friendship from perspectives of Russian, German, Polish.

SOLIDARITY AND SOVEREIGNTY - THE CHALLENGES FOR THE SWEDISH SECURITY POLICY DEBATE

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The purpose of this essay is to map the principle arguments and challenges in the Swedish security policy debate following the Defence Bill of 2009. The study purports to display some of the major traits of the Swedish strategic culture. The analysis is guided by two major propositions about the security debate after the end of the Cold War: that the construction of threats has marginalised arguments about power politics in the Nordic-Baltic area, and that the role of the armed forces has changed from a deterrent in itself to usefulness according to availability. Three major conclusions could be made from the analysis – 1) since the government does not prepare for some of the tasks it poses for the armed forces, it exposes itself for criticism. However, this criticism is part of a two level sovereignty game where the national arena is only one of the dimensions; 2) The declaration of solidarity is built on assumptions of threats that have been absent in the debate since the end of the Cold War, and this creates challenges for the rhetoric of the government, as well as its policies; 3) Since the political discourse lacks references to power politics, it becomes more difficult to analyse and handle the potential consequences of the declaration of solidarity. This could prove probelamtic in a situation when other countries declare a need for military support.

NORMATIVE INTELLIGENCE POWER EUROPE?

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In a seminal 2002 article, the British professor Ian Manners introduced the term "Normative Power Europe". The article has since been followed by a vast number of similar studies, all arguing that the European Union [EU] has based its Common Foreign and Security Policy [CFSP] on a strong normative foundation of democracy, rule of law, human rights, good governance and international

law. As a consequence of its alleged deep internalisation and therefore uncompromising upholding of these norms, the EU is said to be a sui generis actor in the international system; it is, so supporters say, an actor that puts values and norms before self-interest.

This presentation discusses the normative foundation of the EU intelligence work. EU intelligence is based on two sources. The first is the EU intelligence cell under the General Secretariat, and the second is the contributions made by the national intelligence services of the member states that flow into the EU intelligence cell. Two central normative issues present themselves in this respect.

The first issue regards the democratic control – especially by the European Parliament - over the EU intelligence cell. This leads to the first question of the presentation:

- To what extent is the EU intelligence cell actually controlled by other EU institutions and how is this control exercised?

The second issue regards the broader normative foundation of the intelligence work of the individual member states. Given member states' different standards and partner circles, we should expect that the sources of their intelligence will also vary; some may e.g. cooperate closer than others with states known for their active use of torture or their participation in rendition programmes. This leads to the second question of the presentation:

- To what extent does the EU exercise control over the nature of the national intelligence contributions made to the EU intelligence cell? How does it ensure that intelligence contributions made by member states do not undermine the EU self-image of "Normative Power Europe"?

The presentation aims to shed light on a little-analysed topic: The workings of the EU intelligence cell, which is still shrouded in mystery, and to present the foundation of its work within the broader context of the normative basis of the EU.

NUCLEAR PROLIFERATION IN THE MIDDLE EAST FROM A POLICY PLANNING PERSPECTIVE

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The paper covers the question of proliferation in the ME, the publicly invoked reasons by different governments in the region to justify their policy, and the role of nuclear powers in the proliferation process. The paper looks at the history of introduction of atomic energy in the region by starting with Israel's quest and French connection It then assesses the US-Iran cooperation in the 1950s. That bilateral relationship was substantiated by some European countries' activities in Iran. More recently, US, Europe, and South Korea concluded substantial agreements to transfer nuclear technology and build nuclear plants in friendly countries. The paper tries to answer why countries in the Middle East are so atom-obsessed despite their vast fossil energy resources.

SYNOPSIS REGARDING THE EU AS CONFLICT MANAGEMENT INSTRUMENT

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1 Introduction

1.1 Motivation and relevance

It is interesting to see the EU as a crisis or conflict management tool, especially in the light of the recently ratified Lisbon treaty. The Treaty should enable EU to act more decisively on the international scene.

1.2 Background

1.2.1 Issue

Is the more EU capable to act as a crisis or conflict management tool, than prior to the Lis-bon treaty? What tools does the EU have to act as a crisis or conflict management tool, and should the EU use these? Are there special conditions which exist in relation to the EU as a crisis manager outside the European continent e.g. on the African continent?

1.2.2 Thesis statement

In view of the problem, the following hypothesis is formulated.

" The European Union has become a stronger player on the international scene after the implementation of the Lisbon Treaty?"

2 The EU after the Lisbon Treaty

After ratification of the Lisbon Treaty, a High Representative for Foreign Affairs and Security Policy will be appointed. Its purpose is to give the EU a stronger "foreign policy" profile.

The High Representative exercises, in foreign affairs, the functions which, so far, were exercised by the six-monthly rotating Presidency, the High Representative for CFSP and the Commissioner for External Relations[1].

In support of the High Representative is the Lisbon Treaty defines a European foreign service (the EEAS), to be organized separately from both Commission and Council. However, it is meant the EEAS should ensure consistency and better coordination of EU external action, why it must also support the President of the European Council, the President and members of the Commission.

For HR to implement the European Security and Defense Policy, the Crisis Management and Planning Directorate (CMPD), the Civilian Planning and Conduct Capability (CPCC), the Military Staff (EUMC), and the situation center (SitCen) is joined within the EEAS

All these staffs will naturally continue to solve their former functions to the extent it is still relevant, and they will continue to provide other relevant services for the European Council, Council and Commission.

Finally the EU is now defined as a legal person. This allows the EU to reach binding agreements with third countries, including binding treaties or ratify conventions. The EU has not before the Lisbon Treaty had "treaty-making power."

In relation to the defence dimension, the Lisbon Treaty adds to its task portfolio. The de-fined tasks are expanded from the Petersberg tasks to also include peacemaking and post-conflict stabilization operations. All these tasks may contribute to combating terrorism, including through the support provided to countries combating terrorism in their territories[2].

1 Press release from November 2009 The High Representative for Foreign Affairs and Security Policy / The European External Action Service
2 Lissabon traktaten art. 43 stk.1

3 Conclusion

Thus the EU looks as if all the right tools are available for the Union to become an effective crisis management organization.

Especially with the newly reached agreement on the actual formation of the EEAS and the some 136 EU embassies, that is planned.

A PRAGMATIST APPROACH TO RISK ANALYSIS: TOWARD ANALYZING KNOWLEDGE-BUILDING OF SITUATIONAL PICTURE AND SITUATIONAL AWARENESS

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Knowledge is an important variable in any risk analysis model. This paper focuses on risk analysis in border security as an illuminating case of the management of uncertainty. Special attention is paid to the EU integrated border management, where risk analysis was recently introduced as one of the core tasks of the EU external borders agency FRONTEX. We focus on risk analysis by incorporating theoretical insights arising from sociology, economics and pragmatism. By knowledge we refer to the evolving variety of knowledge that prevails among relevant actors. Knowledgebuilding in the risk analysis of border security is a far richer, more complex and more socially embedded process than the formal process defined in textbooks. We aim at clarifying the concepts of situational picture and situational awareness, and to present a pragmatist risk analysis model, which takes into consideration both knowledge at the system level (knowledge that) and know-how at the staff level (knowing how).

KEY VARIABLES IN STRATEGIC PLANNING

Liselotte Odgaard
Villiam Krüger-Klausen

Operations in Afghanistan and Iraq have highlighted a gap between political goals, strategic objectives, operational planning and implementation at the tactical level. The model proposes to organize key players and staffs into four interrelated and complementary groups with differentiated functions and output. The model allows for top down and bottom up as well as double loop learning feed back mechanisms to influence the implementation of the strategic objectives. The interpretive group, focuses on the level of grand strategy, determining the normative goals that a government is working towards realizing. The group interacts iteratively with the political levels of government. The adaptation group focuses at the level of national security strategy, determining and inventing the legitimate policies that the national goals can be coupled to at the national and international levels. The linear group focuses on the instrumental level of strategy. This group is mainly operating at the administrative level and formulates strategy and determines the capacities needed to implement the strategies. The strategy coordination group consists of rotating members from the other three groups and coordinates and evaluates the implementation of the strategy. This group ensures that strategies are implemented and evaluated in context of the changing situation.

POST-CONFLICT STATES ARMIES AND NATIONAL SECURITY MANAGEMENT IN AFRICA

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The statutory duty of the Armed forces of any nation is to protect and defend the territorial integrity as well as the sovereignty of the nation (national security). As such nation-states spend huge funds on military intelligence and hardware. However, when a nation faces incessant political crises (wars) the statutory functions of the military is threatened as foreign troops partly takes over the security of the nation in the name of peacekeeping operations supervised by either regional or international bodies like United Nations with foreign armies. Furthermore, de-escalation of the violent conflict is often followed with Security Sector Reforms(SSR) which centre on restructuring and repositioning the military to meet modern civil-military democratic demands. SSR in post-conflict societies are mostly conducted by foreign military and sometimes Private Military Companies (PMCs) which further pose question on national security of affected nations. The intervention of foreign troops most often alters the defence policy and strategies of affected nations. Against this background, this paper will examine the state of preparedness and readiness of post-conflict National Armies in managing their national securities. The Armed Forces of post-conflict Burundi, Liberia, and Sierra Leone are case studies. Furthermore, the place of Private military Corporations in SSR will be explored for most PMCs operates as mercenaries with impunity without respect to national and international laws since they are not bound by any government (Iraq cases).

War Studies

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THE FATAH-HAMAS RIFT 2006-2008 – A CASE STUDY OF INTRA PALESTINIAN CONFLICT DYNAMICS

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The difficulties of the Palestinians to come together in a united front against their common enemy, and to mobilise society into something more productive and sustainable than the reoccurring intifadas, seem never-ending. In addition, the cleft between Palestinian organisations HAMAS and Fatah is today profoundly deeper than ever before. Why is this? What drives the Hamas-Fatah hostilities? Do we really understand the inner dynamics of Palestinian society? How are conflict dynamics understood from within this context? The complexities of this seemingly intractable conflict have fascinated thousands of scholars, and the interest has led to a broad literature of scientific contributions. However, quite problematically, the bases of those studies are usually Western perceptions of how conflicts arise, are played out, and eventually solved. Few contributions are made by scholars with Levantine origin and/or with real, inside, cultural knowledge. Possibly, a perspective from within Arab society could further our current understanding, e.g. differing perceptions of 'victory' and 'defeat', behavioural rationale during conflict, perception of time, and even suggest how to diplomatically manoeuvre in negotiations for peace. This paper presents the findings of extensive field studies in the Levant - consisting of participant observation and of numerous in-depth interviews with a variety of Syrian, Israeli, and Palestinian sources, all with their respective ties to the conflict, and to regional conflict resolution traditions.

INTELLIGENCE IN COIN OPERATIONS: EXTENDING TARGETING INTO MONITORING IN AFGHANISTAN

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The war effort in Afghanistan has focused on kinetic targeting. Since insurgent operations involve few fighters, the intelligence task became to identify and locate perpetrators. Modern network analysis was applied in support of targeting, but intelligence collection and analysis in support of day-to-day relations with Afghan communities have been insufficient to allow intelligence-driven operations to build relationships and gain their support. Intelligence is needed to monitor the social fabric of Afghanistan, relations between communities and ethnic groups, and the actions of influential Afghans. Reintegration efforts to assimilate low to mid-level insurgents into their communities must be monitored, to verify that former insurgents behave but also to prevent dissatisfied rivals from manipulating the process to take revenge. Without a more comprehensive intelligence effort that goes beyond targeting, the challenges of Afghanistan may prove insurmountable.

THE NEGLECTED POLITICAL COMPLEXITIES OF COUNTERINSURGENCY OPERATIONS IN FRAGILE STATES

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Counterinsurgency remains a widely discussed and researched topic. With the current difficulties in successfully addressing the insurgency in Afghanistan, Western liberal states and their alliances are facing challenging times. For several decades and in various waves, 'experts' have contributed to the development of counterinsurgency (COIN) policy and doctrine. The current debate can best be described as a cacophony of different concepts and knowledge. The indistinctness of terminologies and lack of common understanding has led to the reality that everybody seems to be an expert on a complex political phenomenon: countering insurgencies. Despite the political character and aims of insurgencies, the contemporary debate is dominated by military experts since many of them are challenged with conducting counterinsurgency operations in the field. In fact, when analysing potential counterinsurgency successes, the main focus appears to be on the performance of the military in terms of neutralising the insurgents. Civilian agencies seem to be held less accountable for diminishing the influence and power of insurgents, despite the earlier mentioned political nature of an insurgency. This might be a result of the current reality that armed forces are often used by their respective governments to account for the governance and development aspects when civilian agencies are not yet represented or lacking behind. This trend has not only led to criticism from the humanitarian community but it has also led to major confusion amongst the military who are more often than not expected to be diplomatic humanitarian warriors.

The current complexities of countering insurgencies in Afghanistan and Iraq, drives various scholars, policymakers and military, to try and invent the ultimate COIN recipe. This article argues that most of the ingredients of policies such as the comprehensive approach currently applied in Afghanistan are in fact good enough to boil a soup, but it does not taste well in the mouths of the recipients. The shareholders of the ingredients seem to neglect the fact that maybe local flavours and spices should be added to the soup. Finally, the soup should be tasted and tested by some of its potential customers before it is served.

In this exploratory, a short overview of the current COIN debate and its background is presented. In various analyses of contemporary COIN, one can see that in fact not much has changed. Nevertheless, some claim to that the global dimension of insurgencies has caused a separation between the so-called classical and global counterinsurgency thinkers (Cassidy 2008; Jones and Smith 2010; Kilcullen 2005; Metz and Millen 2004). Furthermore, the claim made by global COIN thinkers that the Global War on Terror (GWOT) is in fact a campaign against 'a globalised Islamist insurgency', illustrates that political rhetoric has become an accepted idiom in science. In addition, political concepts and military strategies and terminologies such as terrorism and counterinsurgency are often mixed and declared interchangeable. This causes a lot of confusion on the one hand, but a simplification of the complexities at the other.

Thirdly and most importantly, this exploratory would like to add to the whole debate by further utilizing observations made by various scholars about the problematic nature of foreign interventions in fragile states and their lack of profound knowledge about state building processes (Angstrom 2008; Duyvesteyn 2009; Egnell 2008; Lake 2007; Paris 2004: Schafer 1988) which obviously hamper any form of sustainable success against instability caused by insurgents. The case of Afghanistan and the applied 'Comprehensive Approach' will be used to illustrate the difficulties and inconsistencies of Western liberal thinking when implemented in a fragile state threatened by insurgents.

NOTE: This exploratory is part of a PhD project, investigating the assumptions and possible flaws of Western COIN thought and its impact when applied. A comparative case-study analysis about the application of the comprehensive approach in South- Afghanistan by Canada, the United Kingdom, the United States and the Netherlands will be conducted to provide the empirical data.

CONVENTIONAL ARMED FORCES' THINKING ON TACTICS FOR CONTEMPORARY IRREGULAR WARFARE

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The superior study question is: What characterizes contemporary Swedish military thinking on tactics for conventional armed forces to be ready to confront irregular warfare? The question will be approached in two ways. First, a literature review will elucidate how the phenomena of irregular warfare has been described in general in the western world. Articulations of differences to regular warfare and views of typical traits will be scrutinized, especially regarding tactics. Second, a case study of personnel from the Swedish Armed Forces will be performed, focusing on the participants' personal thinking on irregular warfare. Comparisons between the two sets of results will then be made. The analysis aims at developing new knowledge on what kind of thinking exist, and what causes that might lie behind the observed thinking. Implications will be discussed on the interrelated field of tactics and leadership. The study design and preliminary results will be presented.

LAND FORCES IN IRREGULAR WARFARE – THEORY AND DOCTRINES

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Irregular warfare – i.e. the 'violent struggle among state and non-state actors for legitimacy and influence over the relevant populations'[1] – is a common phenomenon in the understanding of contemporary international relations. As a result, several military doctrines on how to engage in irregular warfare have been developed during the last ten years, for example, American, British and NATO doctrines on counterinsurgency operations and stability operations.[2]

The causal mechanisms on how to suppress an insurgency considered in these doctrines are highly diverse; from conventional warfare to winning the hearts and minds of the local population and to build or rebuild the security forces of the host nation.[3] Land forces often have a central role in these efforts. However, these kinds of operations often fail, rather than succeed. According to Daniel Byman and Taylor Seybolt, more than half of all military interventions in civil wars fail.[4] This is also obvious concerning the war in Afghanistan. Despite the international military engagement in Afghanistan since 2001, the security situation has deteriorated, rather than improved, during the last ten years.[5]

Since military doctrines are considered important for the preparation, planning and execution of military operations, the ideas of how to engage in irregular warfare included in doctrines on counterinsurgency operations and stability operations influence how these kinds of operations are conducted.[6] However, the

1 Joint Publications 3-24, 2009, Counterinsurgency Operations, p. I-7.
2 Army Field Manual, 2007, Volume 1, Combined Arms Operations, Part 10, Counter Insurgency Operations (Strategic and Operational Guidelines); Field Manual 3-07, 2008, Stability Operations; Joint Doctrine Publication 3-40, 2009, Security and Stabilisation: The Military Contribution; Joint Publications 3-24; Supreme Allied Commander, 2010, Bi-SC Joint Operational Guidelines 10/01: Counterinsurgency (COIN).
3 Kersti Larsdotter, 2009, 'The Changing Character of Peace Operations: The Use of Force at the Tactical Level', Karin Aggestam & Annika Björkdahl (red.), War and Peace in Transition: Changing Roles of External Actors (Lund: Nordic Press), s. 90-106.
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causal mechanisms considered in the doctrines, i.e. the ideas of how to conduct successful operations, are sometimes contradictory, suggesting different kinds of logic and/or worldviews are at play at the same time. Furthermore, sometimes these casual mechanisms contradict theoretical findings.

If the internal logic and underlying assumptions of counterinsurgencies in these doctrines are contradictory, and if causal mechanisms considered in the doctrines are inconsistent with contemporary research, it might decrease the possibility to achieve success in irregular warfare. In order to increase our understanding of the internal logic and the underlying assumptions, American, British and NATO doctrines on counterinsurgencies as well as stabilisation operations will be more closely analysed. Understanding the internal logic in these doctrines can be valuable for the development of future doctrines. Furthermore, if different doctrines have different internal logics, an increased understanding of these logics might increase the interoperability of the doctrines.

PRACTICAL KNOWLEDGE IN WAR STUDIES

Dr Peter A. Mattsson, Sweden

In the very hard battles of Tolvajärvi in December 1939 - one of the most outstanding commanders Aaro Pajari - demonstrated how he in action combined different kinds of practical knowledge – and turned his units from a tactical failure into a strategic success.

The aim of this paper is both to examine and to analyse the concept of practical knowledge in a context of war studies. In the paper is the Aristotle's concept of practical knowledge discussed and used as an analytical tool to examine one cadet exercise in extreme winter conditions and as well as one officer international staff exercise. Results show that it is useful to apply philosophical methods, concepts and analysis to identify and assess learning objectives of practical knowledge in the curriculum of war studies.

CLASSICAL WRITINGS OF THE ART OF THE WAR REVALUATED

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Military theories and classical military writings are easily misused, as they are separated from the actual argumentation they are made for. It is suggested in the paper that the text of military classics, such as Carl von Clausewitz, Basil H. Liddell Hart, J. F. C. Fuller, T. E. Lawrence, Sun Tsu and Miyamoto Musashi, do have common denominators in explaining the Art of War as a social and community level phenomena. Hence, before their texts are to be used in any context considering warfare, they have to be put in dialogue with each other. In the paper, a new approach in conducting and using military classics is presented, while some grave misunderstandings, especially concerning Sun Tsu's texts, are also revealed. These discoveries help us to apply the military classics in a way; they could also assist in understanding modern combat and conflicts.

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THE TREATY OF WESTPHALIA AND THE BAMBOO BRUSH: EXPLAINING THE DOMINANCE OF WESTERN INTELLECTUALISM IN EASTERN MILITARY PEDAGOGY

Weichong Ong, Singapore

The influence of the Westphalian state system in Asia has been profound. In the post-1945 context, Charles Tilly's 'war makes states' thesis is perhaps more relevant to Post-Colonial Southeast Asia than Western Europe. In the wake of imperial retreat and the rise of left-wing insurgencies, the need to maintain internal security in the face of challenges to state authority became the primary raison d'etre for the armed forces of all ASEAN founding member states (with the exception of Singapore). The fact that the region is populated by independent states at all is an artefact of European contact and colonisation. It also explains why the region's militaries look more or less like their European counterparts in terms of organisation and nominal responsibilities.

In Southeast Asian defence institutions, military pedagogy is heavily dominated by intellectual ideas rooted in the European Englightment rather than indigenous ones. In the extreme case of the Singapore Armed Forces, its western-centric model has evolved into a 'system-centric' type of professional military pedagogy not much different from its Anglophone and Israeli counterparts. In China, military thought and pedagogy is a dialectical discourse between its continous civilisational traditions and the abrupt transformation of the Chinese nation state into a twenty-first century global power.

By examining the course curriculum of SAFTI Military Institute (Singapore), the Malaysian Armed Forces Defence College and the Indonesian Defence University against their respective historical, geo-political, social, strategic and operational contexts, this paper will demonstrate that in the case of post-colonial Southeast Asia, the intellectual thrust of military pedagogy has not moved beyond the state-centric ideals of the European Enlightenment. In an exploratory attempt to define the intellectual thrust of contemporary Chinese military thought and pedagogy, this treatment will also be extended to the two foremost military schools of the People's Liberation Army - the People's Liberation Army National Defence University and the Academy of Military Sciences of the People's Liberation Army.

In short, this paper shall explain why eurocentricity still persists in post-colonial Southeast Asian military institutions despite decades of independence and how the Chinese military education establishment is reconciling the millennia-old civilisational-centric role of military force to the state-centric one that came with its enforced interactions with the West. To conclude, this paper will pose the following three questions that have yet to be scrutinised in any serious manner: (1) Other than Mao Zedong and Vo Nguyen Giap, why have so few Eastern military thinkers made it into the War and Campaign Studies reading list of Southeast Asian military academies and staff colleges; (2) Why has post-colonial Southeast Asia not produced military thinkers and scholars in the quality and quantity of even the smaller European states; and finally (3) How should the world outside China interpret the rapid transformation that is currently underway in not just the organisation and role of the PLA, but also the intellectual underpinnings of its contemporary military thinkers and practitioners.

NON-LETHAL WEAPONS: PEACE ENABLERS OR TROUBLESOME FORCE?

Dr. Sjef Orbons, The Netherlands

In contemporary international military intervention missions a need has emerged for 'Nonlethal' weapons and capabilities (NLWs). So far, only limited numbers of NLWs have been fielded, as their military utility is still debated.

This paper examines the role of two first generation NLWs that have been used in Northern Ireland since the 1970s. Security forces have employed CS (tear gas) and kinetic projectiles during three decades of 'Troubles'. The analysis uses a Defence Technology Assessment (DTA) framework to determine how the deployment of NLWs has contributed to conflict stabilization. DTA is designed for a systematic approach of military concepts within the operational context of their application.

It will be demonstrated that expectations of NLW effects differed considerably from the outcome of their use in real situations. Case analysis points out that the specific context of NLW-use introduces considerable variability in its impact on order and stability. Findings have wider implications for the military utility of NLWs.

INSTITUTIONAL ANALYSIS AS A TOOL TO UNDERSTAND IRREGULAR WARFARE

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The difficulty for conventional armed forces to adapt to irregular warfare appears to transcend cultural and historical barriers. It is the purpose of this paper to show that irregular warfare presents a challenge that goes much beyond technical military adaptation, and that this type of conflict is actually directly undermining the institutional core legitimacy of a conventional military force.

This paper use the institutional analysis derived from the sociological work of Richard Scott. Institutional analysis has been used to understand how various private and public organizations come to look alike and how they take decision, but very few used it to study military institutions.

To illustrate the usefulness of the framework, a comparative historical analysis is proposed about adaptation to irregular warfare by the French in Algeria (1954-62), the Indians in Sri Lanka (1987-90), the Italians in Libya (1911-31), and the Japanese in Manchuria (1931-45). The main conclusion is that effective adaptation resides primarily in aligning the deep normative and cognitive assumptions of the military institution to the internal and external sources of its legitimacy.

INTRODUCING 'RESINT': A 'MISSING' AND 'UNDERVALUED' 'INT' IN ALL-SOURCE INTELLIGENCE EFFORTS?

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The central thesis of this paper is that both qualitatively and quantitatively, research work, and the 'knowledge' that it generates, can readily be turned into more of a purposeful and relevant contribution to overall intelligence activities. To better realise the enhanced operational-to-strategy/ policy-orientated utility of research work and the knowledge it can communicate, this paper advances a proposed way forward. This is articulated in the form of the need to more explicitly turn research-originating material into an 'INT', namely turning that work into more of a distinct and coherent intelligence 'collection discipline' in itself. The shorthand term assigned in this paper for labeling that mode of contribution is 'RESINT'. This paper concludes by arguing that further efforts towards better developing RESINT can be undertaken into the future. By harnessing RESINT and better promoting all it can offer, we can genuinely help towards better 'turning research and knowledge into use'.

COLLABORATION OF SECURITY ACTORS IN FINLAND – AN OPERATIONAL-TACTICAL PERSPECTIVE

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Our society, like in most western countries, holds that security and col-laboration are important. As terms, they are open to interpretation, both on their own and particularly in combination, and thus understanding the content of the terms requires research. This article is based on disserta-tion dealing with the success factors in security actors' collaboration at the operational-tactical (collaboration practice) level.

As a result of the research, it can be observed that the suc-cess of security actors' collaboration depends on well-run collaboration with the authorities and effective solutions at all levels of action. The functionality of collaboration is supported by international cooperation and the manageable size of domestic security contexts. These key find-ings support the comprehensive perspective on security actors' collabo-ration success factors in national and multinational contexts.

RECONSTRUCTION THROUGH CONSTRUCTION?

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That the world and its wars are changing, is not a nuisance, as it is the opening line of many articles and reports concerning missions, in for example Afghanistan, Iraq and the DRC, and the comprehensive approach (C. Gourlay, 2000; J. Goodhand & D. Hulme, 1999; A. Natsios, 2005; B. Rietjens, H. Voordijk and S. de Boer, 2007). The comprehensive approach (CA) is being seen by many scientists,

and political and military leaders as the new approach to engage in wars against insurgents (R. Gabrielse, 2007; D. Cavaleri, 2005). The term CA was introduced during the mission in Afghanistan when it became evident that the ongoing war against the Taliban was not won by just using the military form of power. The idea behind the CA is that in a war against insurgents one needs to use different elements of power in order to successfully rebuild a state. These elements of power include diplomacy, defense and economic development (P.D. Thruelsen, 2008).

This paper focuses on the economic development element of CA, and more specifically on physical construction. Is reconstruction through construction possible? Although the word reconstruction is often used as a synonym for the word development and state building, in this paper it indicates all the actions taken regarding the construction of physical infrastructure. These kinds of projects in expeditionary operations are often issued by engineers working in Provincial Reconstruction Teams (PRT). These construction processes take place in an environment which is much different from the surroundings in which Dutch engineers normally work. Even though everyone is aware of this large difference in surroundings the (project) management models, call for tenders-methods, and control mechanisms which are being used at 'home' are often copy-pasted onto the PRT's projects in these expeditionary operations. However, Afghanistan has its own construction culture, intertwined with a very different work culture and ethics (Kremers et al., 2010; A. Qing Wang, et al. 2004). This leads to problems in the construction process, for example difficulties in communication with local contractors and leaders. These problems lead to more questions, such as which other problems can be distinguished at which level? And how can research and eventually knowledge help prevent such problems from occurring?

In order to create an overview of the encountered problems concerning construction processes in expeditionary operations, I have conducted several interviews with military personnel from different ranks and functions related to building projects or processes in non-western environments. Through this paper I would like to share my findings and experiences regarding this inventory with other participating nations. However, I would also like to open a discussion as to see which related problems are occurring in other ISMS participating nations concerning this issue. And I feel that my paper would create a valuable backdrop to facilitate such a discussion.

TARGETING AND MILITARY OPERATIONS

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Targeting has become an integral part of how military operations are planned and carried out both in regular and irregular warfare. In Sweden targeting is seldom analyzed scientifically. Arguably, overarching aim of research in targeting is to understand and explain the process of targeting as well as its effect. However, in order to understand targeting it is important to first come to term with what the term mean and implies for the Swedish armed forces. This text tries to trace the various definitions of targeting as they are used in the armed forces today and the possibilites for research linked with each definition.